The interpretation of this relationship is straightforward. Suppose the lowest level for s, i.e. $s \to 0$, the …rms market share is negligible and the intra-sector market tends to be highly competitive. The equality between price and marginal cost implies the highest production level: more workers are employed in production, leaving few resources for R&D activity and, obviously, a lower growth rate.

On the contrary, when the market share is maximum, no …rm has direct competitors: setting the monopoly price, more workers are available for R&D activities, and so, the growth rate raises. Furthermore, a lower degree of inter-dependence among …rms leads to a higher level of pro…ts, giving more incentives to innovation activities.

The relationship between the growth rate and market share can also be analyzed by evaluating the derivative of g^{SS} in (35) with respect to s:

$$\frac{\partial g^{SS}}{\partial s} = \frac{[2 - s(1-\beta)][s(1-\beta)]\left[\rho + \frac{1}{a}\right]}{[s^2(1-\beta) - s(1-\beta) + 1]^2} > 0.$$

Sustained innovations should be possible for $s \neq 0$. This means that a positive growth rate results if, and only if, some intellectual property rights prevent the free use of innovations.

Note that when $s = 1$, there is only one …rm per sector and this implies the traditional Grossman-Helpman result:

$$g^{SS}_{G-H} = \frac{1}{a}\frac{L}{}(1-\beta) - \rho\beta. \tag{38}$$

In their formulation the parameter β plays a fundamental role with respect to the product di¤erentiation degree. The lower it is, the lower is the level of substitutability, σ, between goods, and the higher is the pro…ts level; thus the grows rate rises. On the other hand, when the product di¤erentiation is minimum (i.e. $\beta \to 1$), the varieties are perfectly substitutable among themselves and pro…ts are driven to zero. Now, there is no incentive for innovation because zero pro…ts do not permit the recovery of the positive cost of R&D. The same situation occurs when no patents exist ($s \to 0$).

3 Conclusions

The contribution of this paper can be found in its analysis of two market structures, usually considered as alternative types of competition.

In recent attempts to involve the strategic interaction in endogenous growth models an ambiguous relationship emerges between the growth rate and the degree of competition of market structure.

Here, denoting the degree of competition by the intra-sector market share, the main result of the paper concerns its unambiguous e¤ect on the growth rate. When the degree of competition is high, prices go down, the aggregate quantity raises and the available labor force for R&D activity are reduced, so the growth

rate falls. On the contrary, a lower interdependence among …rms leads to a higher growth rate. The increasing in prices reduces the aggregate production, more resources are available for R&D and the result is a higher growth rate.

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